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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,589	09/05/2003	Kazushige Oki	50212-533	7325
20277	7590	07/28/2005	EXAMINER	
MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			WONG, TINA MEI SENG	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/655,589	<b>Applicant(s)</b> OKI, KAZUSHIGE	
	<b>Examiner</b> Tina M. Wong	<b>Art Unit</b> 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 July 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-11 and 14-16 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 and 16 is/are allowed.
- 6) ☒ Claim(s) 1,3,6-11 and 14 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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This Office action is responsive to applicant's communication submitted on 11 July 2005. Corrections of the minor informalities are noted by the Examiner.


*Claim Objections*

Claim 15 is objected to because of the following informalities: On Line 10, the word "cashing" appears to be a typographical error. The Examiner believes the word should read "casing". Appropriate correction is required.

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

 Claims <sup>1, 3, 6-11, and 14</sup>~~1-15~~ are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,863,448 to Chiu et al.

In regards to claim 1, Chiu et al discloses a housing (400) having a lower casing (301) with a receptacle (103) for mating with an optical connector (161), a mount (309), an upper casing (303) being engaged with the lower casing, and a cover (401) for covering the upper casing. Chiu et al further discloses a block (120) mounted to the lower casing, an optical sub-assembly (411) having leads (203) mounted on a block, coupled with the connector in the receptacle, a substrate (200, 250) electrically connected to the sub-assembly by the leads of the optical subassembly and mounted on the mount of the lower casing and a block (120) mounted to the lower casing for defining the relative positions of the optical components. Although Chiu et al fails to specifically disclose the block mounted on the lower casing, Chiu et al does disclose

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the block mounted to the lower casing. Since Applicant has not disclosed that mounting the block on the lower casing solves any stated problem or is for any particular purpose, and it appears the invention would perform equally as well with the block mounted to the lower casing, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have mounted the block to the lower casing in any fashion as long as the block is securely fastened and defines a relative position for the optical components. (Figure 1, 2, 3, 4A and 5)

In regards to claim 3, Chiu et al discloses all discussed in claim 1 above and further discloses a block (120) comprising a mounting portion (127/128) for mounting the sub-assembly, a supporting portion (201) for holding the circuit board, a pressing portion (201) for pressing the circuit board where the sub-assembly (411) is mounted to the mounting portion.

In regards to claim 11, Chiu et al discloses all discussed above in claim 1, but fails to disclose the block to be made of resin. However, a resin material is commonly used in a fiber optic connector block, since resin is a good insulator. Therefore it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used a resin material for the block in a fiber optic connector.

In regards to claim 14, Chiu et al discloses all discussed in claim 1 above and further discloses the receptacle of the lower casing (301) having an opening for abutting surface (305A) for abutting against an opening (155) of the block, where the optical subassembly passes the opening of the surface of the receptacle and the opening of the block.

In regards to claim 6, Chiu et al discloses all discussed in claim 14 above and further discloses the block to provide a first protrusion (319), the lower casing having a second cutout

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(315) and the upper casing to provide first protrusion (313) and second cut out (317) for engaging with the second cutout, such that a surface of the block abuts the surface of the receptacle. But Chiu et al fails to specifically disclose the block to have a cutout mated with a second protrusion on the upper casing. However, Chiu et al does disclose a protrusion on the block and a cutout on the upper casing able to be engaged with each other. Since Chiu et al disclose a protrusion and a cutout that preform the same function as claimed by Applicant, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have a protrusion on the block and a cut out on the upper casing.

In regards to claim 7, Chiu et al discloses all discussed above in claim 6 and further discloses a mounting block for mounting an optical device, a center wall, a pair of side walls, where a mounting portion (127/128) is disposed between the center wall and one of the side walls and a first cutout (157) formed in the sidewall.

In regards to claim 8, Chiu et al discloses all discussed above in claim 6 and further discloses a second cut out (315) formed on the sidewall of the lower casing.

In regards to claim 9, Chiu et al discloses all discussed above in claim 14 above and further discloses an upper casing (303) with a cutout (317) and the block including a center wall having a protrusion (319), such that the surface of the block abuts a surface on the receptacle.

In regards to claim 10, Chiu et al discloses all discussed above in claim 14 and further discloses a holder (401) for holding the optical subassembly, surrounding the optical subassembly such that the holder holds the optical subassembly with respect to the block.

*Allowable Subject Matter*

Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In regards to claim 4, the prior art of record fails to disclose or reasonably suggest all of the limitations in the base claim, any intervening claims and a block including a center wall disposed between a pair of side walls, where the center wall provides a substrate supporting portion and the side walls provide a substrate pressing portion in order to secure the substrate to the block.

In regards to claim 5, the prior art of record fails to disclose or reasonably suggest all of the limitations in the base claim, any intervening claims and a lower casing having a projection on the count for holding the block between the two side faces of the projection and the surface of the receptacle so that the surface of the block abuts the surface of the receptacle.

Claims 15 and 16 are allowed.

In regards to claim 15, the prior art of record fails to disclose or reasonably suggest an optical module with an optical subassembly having leads mounted with an optical device a substrate electrically connected to the leads, a resin block front wall with an opening for an optical subassembly, the resin block center wall with a substrate supporting portion and a first cutout, a pair of resin block side walls with a substrate pressing portion and a second cutout, where the supporting portion and pressing portion hold the substrate by sandwiching the substrate inbetween. The optical module further includes a lower casing with a third cutout having a receptacle for receiving an optical connector holding an optical fiber and a mount for

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mounting a substrate, a receptacle providing a surface with an opening for the optical subassembly, the mount providing a projection for sandwiching the block and the receptacle and an upper casing providing three protrusions engaged with each of the cutouts in the resin block and lower casing.

In regards to claim 16, the prior art of record fails to disclose or reasonably suggest a method of manufacturing an optical module comprising mounting a subassembly on a block with leading ends, securing the substrate to the block such that the substrate supporting portion provided in a center wall of the block and a substrate pressing portion provided in a pair of side walls sandwiches the substrate inbetween, electrically connecting the substrate with the leads of the optical subassembly, installing the block mounting the subassembly connecting with substrate into a lower casing and securing the upper casing such that the front wall of the block abuts against the surface of the receptacle.

The closest prior art of record is U.S. Patent 6,863,448 to Chiu et al relied upon in the rejection above.

### *Response to Arguments*

Applicant's arguments filed 11 July 2005 have been fully considered but they are not persuasive.

Applicant argues Chui et al does not disclose the block in the optical module to hold the circuit boards. However, the Examiner disagrees. The optical receiver and transmitter (110, 111) are part of the optical block and the leads on the optical receiver and transmitter hold the circuit boards to the optical block.



Applicant also argues Chui et al does not disclose a surface in the lower casing having an opening where the optical subassembly can pass. However, the Examiner disagrees. By the broadest definition of “passes”, “passes” is defined by “To move by” according to *The American Heritage® Dictionary of the English Language, Fourth Edition*. By stating passing a subassembly does not necessarily mean to pass through by the broadest definition of the term “passes”

Applicant further argues the Examiner has suggested reference numeral “201” corresponds to the holder. However, this is a typographical error. The Examiner has now corrected the typographical error and now points to reference number “401”.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

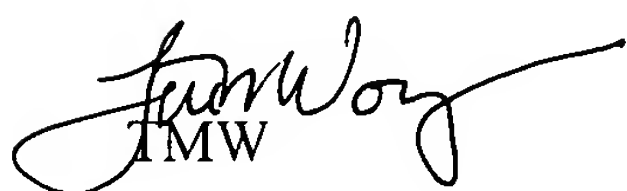


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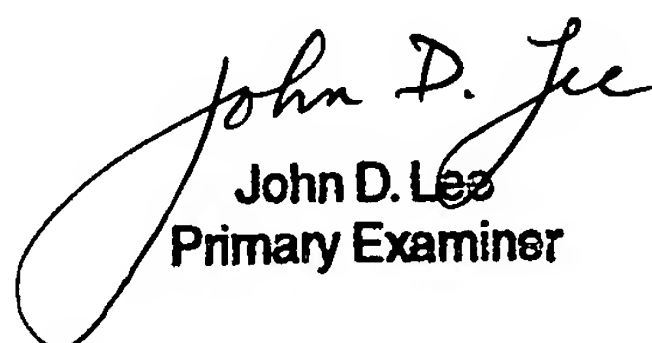
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M. Wong whose telephone number is (571) 272-2352. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TMW



John D. Lee  
Primary Examiner